



28 February 2023

The Electricity Authority

By e mail: distribution.feedback@ea.govt.nz

Cortexo response to the updating the regulatory settings for distribution networks

[Cortexo](#) is a grid-edge software platform that provides a digitalised exchange of energy data enabling flexible distributed energy resources to help to deliver an affordable and reliable electricity system and a zero-carbon economy.

Cortexo endorses the Electricity Authority vision for distribution networks *'to support innovation, promote competition and consumer choice in contestable markets such as flexibility services, and maintain reliability and security of supply.'*

And Cortexo agrees *'ensuring the right regulatory settings are in place to promote competition and access to the distribution network is crucial to support a rapid transition to a low emissions economy.'*

Cortexo is a FlexForum participant and agrees with the points made in the FlexForum submission but wants to make some further specific points.

Unlocking the value of DER and flexibility requires a whole -of-system view, particularly to accelerate digitalisation

Digitalisation is essential to achieving affordable and reliable electrification. Digitalisation relies on the seamless exchange of data and information across the electricity ecosystem and between DER owners, flexibility suppliers, distributors, retailers, System Operator and so on.

The issues paper discusses equal access to data and information, starting by saying that *'ideally New Zealand would have a fully digitised energy system in which key data could be seamlessly accessed and exchanged in real-time by authorised parties.'*

Twelve data-related issues are listed which the Authority considers if addressed would likely help distributors and flexibility suppliers take the first steps to unlock the potential of DER.

What is missing is a clear description of the underlying cause of each issue and the interactions between them. This has resulted in a set of proposed solutions which react to specific concerns rather than reflecting a strategic and whole-of-system approach to establish a solid foundation for digitalisation.

Unlocking the value of DER and flexibility for consumers requires a whole-of-system view. The focus on regulatory settings for distribution networks risks continued siloed thinking that does not join the dots.

The proposal for the Electricity Authority to consider the recommendations of the UK's Energy Data Taskforce would provide a sound basis for accelerating digitalisation of the electricity sector by taking a whole-of-system view.

A whole-of-system approach would identify the potential changes to data flows as electrification creates a more decentralised power system. It would also identify the desired level of interoperability¹ and the associated level of standardisation of communications and connectivity (in messaging formats etc) required for DER and flexibility to support system reliability and security, for consumers to easily choose and change suppliers across an evolving range of electricity services (eg, EV charging suppliers) and to ensure continued evolution (and competition) of communications and connectivity.

The Authority should prioritise work to identify the desired level of interoperability and the associated level of standardisation of communications and connectivity (ie, the requirements of a digital spine). As well as the UK work, the Authority should refer to the work in Australia, including the DER interoperability assessment framework prepared for the Energy Security Board².

Cortexo expects the scope of this study will include how to integrate existing and new 'non-participants', eg, flexibility supplier and similar other parties, providing electricity-related services to consumers and others into the data flows for the electricity market and system.

Streamlining access to consumption data for flexibility suppliers and others providing electricity -related services must be a priority

The Authority describes several issues currently faced by flexibility suppliers and others providing electricity-related services, such as energy information and optimisation services³.

¹ The Authority's description of interoperability and connectivity are reasonable starting points. Interoperability is the ability of DER to work with (ie, communicate) other components and interfaces in the market and system, including with other DER assets and interfaces with key parties, eg, the System Operator, distributors, retailers, aggregators etc. Connectivity is required to communicate.

² FTI Consulting, DER interoperability assessment framework, December 2021, available at, <https://www.energy.gov.au/sites/default/files/2021-12/FTI%20-%20Assessment%20Framework%20for%20DER%20interoperability%20policy%20-%20December%202021.pdf>

³ The electricity-related services may be advisory and not involve any direct market interaction, while still relying on market and system data. As such, access to market and system data, particularly when that data belongs to the consumer, should be accessible to that consumer or their nominated agent.

Of those issues, two (ref: issues 9 and 11) rely on decisions by the Commerce Commission to provide distributors with the ability and incentive to invest in digitalisation, particularly to obtain low voltage visibility⁴. However, issues 8 and 12 are solvable by the Authority and should be solved as a priority to remove barriers to parties developing and supplying services to consumers which will assist with uptake of DER and flexibility.

Flexibility suppliers and other parties have several pathways to obtain consumption data, but also face several barriers.

<p>If the supplier is providing the consumer a market service (alongside a retailer), then they should have the ability to contract with the MEP to obtain consumption data for billing purposes. Multiple trading relationship arrangements need to be introduced to put the supplier on an equal footing with the retailer, including to obtain relevant metering services.</p>	<p>If the supplier is not providing the consumer a market service, then consumption data can be obtained by:</p>
	<p>1. using the measurement capability of the DER at that location or installing a measurement device. This option bypasses the MEP, potentially delivers superior communication and connectivity outcomes, but potentially requires investment in measurement capability.</p>
	<p>2. contracting with the MEP for specific data services. Amongst other things, this option requires the MEP to obtain the permission of the retailer at that ICP, which is not necessarily guaranteed (ref: issues 2 and 8; option d).</p>
	<p>3. requesting consumption data using the mechanism established in Part 11⁵. This option is beset by challenges relating to slow responses to requests and by ongoing failures to use the relevant formats (ref: issue 12; option c).</p>

The proposal to amend the Code to clarify that MEPs must contract directly with and provide both Consumption Data and Power Quality Data to distributors and flexibility traders without the need for retailer permission would more option 2 above more practicable. A relatively straightforward change to the Code (in Schedule 10.6) could be sufficient.

⁴ Low voltage visibility is a loose term which covers the capability to collect and process historical and operational (a better term than real-time) data relating to network performance, ie, consumption and power quality data. The capability is like what currently exists for high and medium-voltage layers of distribution networks.

⁵ Consumer access to historical consumption data is enabled through the Electricity Industry Participation Code 2021, Part 11, clauses 11.32A-11.32F. See <https://www.ea.govt.nz/assets/TheCodeParts/Code-Part-11-Registry-information-management-1-March-2022.pdf>.

The proposed change should make it easier for flexibility suppliers (or others) to contract with an MEP to procure data services at specific ICPs where the supplier has a customer relationship, potentially in tandem with the retailer. The multiple trading relationship arrangements will require clarification of the counterparty relationship between MEPs and additional suppliers.

The more significant challenge for flexibility suppliers and others is the ongoing failure of retailers to digitalise and automate the exchange of consumption data with third parties acting on behalf of the consumer, ie, option 3 above.

The proposal to provide model privacy disclosure terms for retailers to include in their terms and conditions or privacy notices will not work and pursuing this proposal is a waste of time and resources.

The key to streamlined data exchange under the Part 11 mechanism is to reduce the timeframe from 5 days to 1 minute. The Part 11 mechanism has been in place for several years. The time for model terms and guidance is well past.

The privacy concerns of retailers are a chimera. The Privacy Act puts clear obligations on parties requesting and holding personal information to be authorised by the consumer. Legal advice to the Electricity Authority⁶ clearly says retailers are required to respond to an access request as soon as reasonably practicable and cannot use ‘taking precautions’ to preserve consumer privacy as a reason to delay responding.

Moreover, ‘as soon as reasonably practicable’ should be based on capability generally available, not the specific capability of the retailer. Given the prevalence of APIs and near instantaneous exchange of data, as soon as reasonably practicable means within seconds, not days. The 5-day timeframe specified in the Code should be reduced to 1 minute as soon as possible as a necessary step to digitalisation of the electricity sector.

This is a matter of when, not if. Electrification and decarbonisation go hand in hand with digitalisation; the Authority should put a stake in the ground that digitalisation should start now. We can expect innovation and competition to flourish if the electricity sector moves on this at the pace of the fastest, not the slowest.

A flow on effect of digitalisation is the ability to enforce compliance with EIEP formats using validation software to avoid the significant cost in data validation and reprocesses currently being created.

⁶ Refer advice from Victoria Casey KC, 16 October 2019, available at: <https://www.ea.govt.nz/assets/dms-assets/25/25989Victoria-Casey-QC-Privacy-Act-Advice.PDF>

What the Authority should focus on

Cortexo considers the Authority should prioritise two things

1. Provide a whole-of-system view of the known and potential changes to data flows as electrification creates a more decentralised power system, including identifying the desired level of interoperability and the associated level of standardisation of communications and connectivity. The output should be a whole-of-system view of the pathway to digitalisation. An initial view should be published by December 2023.
2. Amend the Code (clause 11.32B(1)) to reduce the timeframe to respond to requests for consumption data from 5-days to 1 minute. This change should occur by December 2023. In parallel, the Authority should set clear expectations regarding compliance with EIEP formats and enforce those expectations.

Cortexo looks forward to working with the Authority and other industry partners on the digitalisation solution and welcomes any approach to assist.

Please contact Terry Paddy, Managing Director, Cortexo, with any questions about this submission.

Yours sincerely,

Terry Paddy

